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To: Harris County Precinct Two Commissioner Adrian Garcia From: Katie Short, Director; Amber Weed, Chief of Staff and Policy

Director; Amy Rose, Senior Analyst; Ramin Naderi, Analyst

CC: Mike Lykes, Mercedes Sánchez, Kris Banks, and Michelle Galindo

with Precinct Two; Barbie Robinson, Jennifer Kiger, and Dr. Ericka

Brown with Harris County Public Health

Date: December 14, 2021

Re: Monthly Memo on COVID-19 Vaccine Distribution, December

2021

EXECUTIVE SUMMARY

In January 2021, Precinct Two requested the Analyst's Office produce a monthly memo regarding the distribution of COVID-19 vaccinations in Harris County. This is the twelfth memo of a standing monthly memo the Analyst's Office produces as the vaccine distribution continues to evolve at the federal, state, and local levels.

This memo provides an overview of the COVID-19 pandemic and vaccine distribution in Harris County. Key findings from the data in this memo include:

- As of November 30, 2021, **56.1%** (2,655,159) of individuals in Harris County were fully vaccinated.
- As of November 30, 2021, **9.5% (449,674) of individuals in Harris County were partially vaccinated**.
- As of November 30, 2021, 7.9% (373,511) of individuals in Harris County had received booster shots.
- Between October 26, 2021 and November 30, 2021, the **number of individuals in** Harris County fully vaccinated increased by 3.1% (from 2,575,464 to 2,655,159).
- Zip codes 77336 and 77090 have the fewest number of individuals per 100,000 residents fully vaccinated (35,830 and 38,236 respectively).
- Zip codes 77098 and 77019 have the greatest number of individuals per 100,000 residents fully vaccinated (83,467 and 86,972, respectively).¹¹
- The median of the median incomes of the fifteen Harris County zip codes with the fewest number of individuals per 100,000 residents fully vaccinated is \$50,461.

¹ IMPORTANT NOTE: Not all data sums to totals reported. This is due to poor and inconsistent data reporting by providers, and because patients have not been required to disclose all demographic data. DSHS reports it is actively conducting county and provider-level analyses to identify if certain providers or areas are underreporting more than others for targeted data entry funding and training. ¹⁸ Zip code analysis excludes zip codes that report a greater number of residents vaccinated than the zip code's total population. This discrepancy is due to poor and limited data.

- The median of the median incomes of the fifteen Harris County zip codes with the greatest number of individuals per 100,000 residents fully vaccinated is \$91,138.
- The number of individuals fully vaccinated in Harris County varies by age group.
 - 79.4% (152,532) of individuals ages 75 and over are fully vaccinated;
 - 81.4% (464,881) of individuals ages 60-74 are fully vaccinated;
 - 76.9% (646,719) of individuals ages 45-59 are fully vaccinated;
 - 66.6% (698,312) of individuals ages 30-44 are fully vaccinated; and
 - 55.8% (688,766) of individuals ages 12-29 are fully vaccinated.
- The number of individuals fully vaccinated in Harris County varies by race and ethnicity.
 - 35.1% (310,767) of individuals who identify as Black are fully vaccinated;
 - 47.1% (959,308) of individuals who identify as Hispanic/Latino are fully vaccinated;
 - 51.2% (670,813) of individuals who identify as White are fully vaccinated;
 - 58.8% (204,574) of individuals who identify as Asian American/Pacific
 Islander are fully vaccinated; and
 - 76.0% (6,409) of individuals who identify as American Indian/Alaskan Native are fully vaccinated.
- The demographic in Harris County with the highest percentage of individuals vaccinated are individuals who identify as Hispanic aged 65-74 (77%). The demographic with the lowest percentage of individuals vaccinated are individuals who identify as American Indian/Native Alaskan aged 75+ (26%), followed closely by individuals who identify as Black aged 75+ (27%).
- Between January 1, 2020 and November 30, 2021:
 - All providers in Harris County administered a cumulative 6,318,740 COVID-19 PCR tests:ⁱⁱⁱ
 - There were 585,130 positive COVID-19 cases confirmed by a PCR test in Harris County; and
 - There were 6,525 confirmed COVID-19-related deaths in Harris County.

The Analyst's Office acknowledges Harris County Public Health and the Harris County Office of Management and Budget for their significant contributions to this memo.

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^{III} PCR refers to the polymerase chain reaction or nucleic acid amplification tests commonly used to test for COVID-19.

INTRODUCTION

In January 2021, Precinct Two requested the Harris County Commissioners Court's Analyst's Office (the "Analyst's Office") produce a monthly memo regarding the distribution and administration of COVID-19 vaccinations in Harris County. This is the twelfth memo of a standing monthly memo the Analyst's Office produces as the vaccine distribution continues to evolve at the federal, state, and local levels.

This memo includes data and analysis regarding COVID-19 testing, cases, deaths, and vaccine administration in Harris County.

METHODOLOGY

Data utilized in this memo are from Harris County Public Health (HCPH) and the Centers for Disease Control and Prevention (CDC). Data reflect COVID-19 vaccine doses administered in Harris County by all providers from the beginning of the vaccine rollout, December 14, 2020, through November 30, 2021, and all testing, confirmed cases, and COVID-19-related death data from January 1, 2020 through November 30, 2021.

All references to "fully vaccinated" refer to the administration of either a two-dose or one-dose vaccine. "Fully vaccinated" excludes any third shots (or "booster" shots) administered.

Data Collected from Harris County Public Health (HCPH)

The majority of data in this memo was sent to the Analyst's Office from HCPH, which analyzes vaccine data received by the Texas Department of State Health Services (DSHS) ImmTrac2 system. As the Local Health Authority for the County, HCPH also analyzes and receives testing, confirmed cases, and COVID-19-related death data from local health providers (including the City of Houston) and other sources. Income data provided by HCPH reflects American Community Survey, 2014-2018 Five-Year Estimates. HCPH data and/or analysts aided in the development of all tables and figures.

DSHS advised the following via email regarding the data available on ImmTrac2:

 Providers in Texas have up to 24-hours to report doses administered in ImmTrac2, and the dashboard is updated by 4:00 pm with data reported as of 11:59 pm the previous night. This means there could be as much as a 48-hour lag between when a dose is administered and when it appears on ImmTrac2.

Prior to the fifth version of this memo, which was circulated on June 3, 2021, this memo included updates and projections on vaccine allocations for the State of Texas or Harris County using DSHS data. However, as of May 10, 2021, DSHS announced it is no longer distributing weekly allocations of vaccine doses to providers due to a "sufficient supply of vaccine". ^{iv} Due to this changed strategy of allocating vaccines,

^b Department of State Health Services (DSHS) COVID-19 Vaccine Allocations. Retrieved May 27, 2021, from https://www.dshs.state.tx.us/coronavirus/immunize/vaccineallocations.aspx

this memo no longer provides updates and projections for vaccine allocations to the State of Texas or Harris County.

Data Collected from Centers for Disease Control and Prevention (CDC)

The Analyst's Office collected information on social vulnerability from the Centers for Disease Control and Prevention (CDC). Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The Social Vulnerability Index (SVI) was created by the CDC and depicts the social vulnerability of communities, at the census tract level, within a given county. SVI groups fifteen census-derived factors into four themes that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability Index combines all the variables to provide a comprehensive assessment. SVI data aided with the development of Table 1.

Prior versions of this memo used population statistics for Harris County from the 2019 American Community Survey (ACS) 1 Year Estimates. All data in this memo uses population estimates from the recently released 2020 Census, except **Table 2**, **Figure 3**, and **Figure 4**, which use 2019 ACS estimates.

^v Centers for Disease Control (CDC) Social Vulnerability Index, a tool to identify socially vulnerable communities.

BACKGROUND

The spread of the novel coronavirus, the cause of COVID-19, began in the United States in early 2020. Since then, local health entities have tracked the testing, the number of confirmed positive cases, and deaths related to COVID-19.

In December 2020, two-dose vaccines from two producers, Moderna and Pfizer-BioNTech, were authorized for emergency use by the US Food and Drug Administration (FDA). In February 2021, the FDA authorized Johnson & Johnson's (J&J) one-dose vaccine for emergency use. On August 23, 2021, the FDA granted full approval to the Pfizer-BioNTech vaccine for those 16 and older, with continued availability for those 12-15 years of age under emergency use authorization. The Pfizer-BioNTech vaccine is currently the only vaccine approved by the FDA not under emergency use authorization. The Pfizer-BioNTech vaccine is currently the only vaccine approved by the FDA not under emergency use

From December 2020 to March 28, 2021, vaccines were made available for individuals in DSHS's Phase 1A (front-line healthcare workers and residents of long-term care facilities) and 1B (individuals ages 65+ and individuals ages 16+ with "at least one chronic medical condition that puts them at increased risk for severe illness from the virus that causes COVID-19"). The March 29, 2021, Texas expanded vaccine eligibility to all individuals age 16 and older. Beginning May 12, 2021, Texas expanded vaccine eligibility to all individuals age 12 and older. Currently, all vaccines are authorized for individuals age 18 and older; the Pfizer-BioNTech vaccine is authorized for individuals age 12 and older.

On August 12, 2021, the FDA amended the emergency use authorizations for the Moderna and Pfizer-BioNTech vaccines to allow for an additional third dose, a "booster," to be administered to immunocompromised individuals.^x On September 22, 2021 the FDA amended the emergency use authorization for the Pfizer-BioNTech COVID-19 Vaccine to allow for use of a single booster dose in certain populations.^{xi} ^{xii}On October 20, 2021 the FDA further expanded the emergency use authorization to permit single dose booster shots of the Moderna and Johnson & Johnson COVID-19 vaccines.^{xiiii} xiv

^{vi} FDA Approves First COVID-19 Vaccine. (August 23, 2021). US Food and Drug Administration. Retrieved August 30, 2021 from https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine

^{vii} Department of State Health Services (DSHS) COVID-19 Vaccine Allocation Phase 1 Definition

viii Department of State Health Services (DSHS) COVID-19 Vaccine Allocation Phase 1B Definition is COVID-19 Vaccine Information. (n.d.). Texas Department of State Health Services. Retrieved May 27, 2021, from

https://dshs.texas.gov/covidvaccine/ × FDA Authorizes Additional Vaccine Dose for Certain Immunocompromised Individuals. (August 12, 2021). US Food and Drug

Administration. Retrieved August 30, 2021 from https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-additional-vaccine-dose-certain-immunocompromised

st Pfizer-BioNTech boosters were authorized for individuals 65 years of age and older; individuals 18 through 64 years of age at high risk of severe COVID-19; and individuals 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

st FDA Authorizes Booster Dose of Pfizer-BioNTech COVID-19 Vaccine for Certain Populations. (September 22, 2021). US Food and Drug Administration. Retrieved October 28, 2021 from https://www.fda.gov/news-events/press-announcements/fda-authorizes-booster-dose-pfizer-biontech-covid-19-vaccine-certain-populations

xiii Moderna boosters are available for individuals 65 years of age and older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age with frequent institutional or occupational exposure to SARS-CoV-2. Johnson & Johnson boosters are available for to individuals 18 years of age and older.

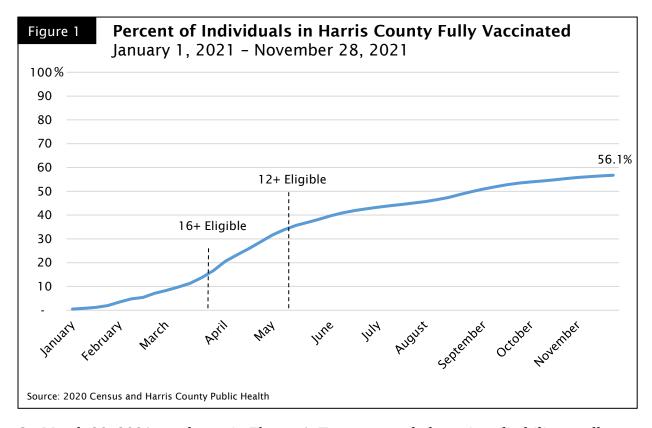
xiv Coronavirus (COVID-19) Update: FDA Takes Additional Actions on the Use of a Booster Dose for COVID-19 Vaccines. (October 20, 2021). US Food and Drug Administration. Retrieved October 28, 2021 from https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-takes-additional-actions-use-booster-dose-covid-19-vaccines

To incentivize unvaccinated residents to seek vaccination. Harris County and the City of Houston launched separate cash card incentive programs for individuals to receive their first dose of vaccination in summer 2021. The Harris County program was launched on August 17, 2021, and offered \$100 cash cards to residents who received their first dose of the COVID-19 vaccine from August 17 to September 30, at any authorized provider in the County.xv Similarly, the City of Houston launched a cash card incentive program on August 26, 2021, stating that the first 20,000 individuals to get fully vaccinated at an eligible health department site would receive \$150 in the form of cash cards; \$100 cash card for their first dose, and an additional \$50 cash card for their second dose.xvi These two incentive programs concluded in September 2021 and there are currently no active incentive programs.

xv Ready Harris. (n.d.). Retrieved September 8, 2021, from https://www.readyharris.org/COVID-19-Incentive-Program ³⁵⁴ Houston Health Department to provide up to \$150 in gift cards for COVID-19 vaccinations. (n.d.). Retrieved September 8, 2021, from https://www.houstontx.gov/health/NewsReleases/houston-health-department-to-provide-up-to-150-in-gift-cards-for-covid-19vaccinations.html

INDIVIDUALS IN HARRIS COUNTY FULLY VACCINATED

Figure 1 presents the percentage of Harris County individuals fully vaccinated between January 1, 2021 and November 28, 2021. This figure includes individuals vaccinated by Harris County Public Health (HCPH) and all other providers. HCPH reports countywide data regarding individuals fully vaccinated by week—the data presented below extends through the week of November 22 – November 28, 2021.



On March 29, 2021, as shown in **Figure 1**, Texas expanded vaccine eligibility to all individuals age 16 and older. Beginning May 12, 2021, Texas expanded vaccine eligibility to all individuals age 12 and older.

As of November 28, 2021, 56.1% (2,655,159) of all individuals in Harris County were fully vaccinated, meaning an individual has received both doses of either the Moderna or Pfizer-BioNTech vaccines or a single dose of the Johnson & Johnson vaccine. This reflects a 3.1% (from 2,575,464 to 2,655,159) increase from October 26, 2021 (the prior memo). As of November 30, 2021, a total of 9.5% (449,674) of all individuals in Harris County were partially vaccinated and 7.9% (373,511) of individuals had received booster shots.

xvii Individuals who are partially vaccinated and individuals fully vaccinated are mutually exclusive, meaning individuals partially vaccinated only includes individuals who have received one vaccine dose of a two-dose shot (Pfizer or Moderna) and individuals fully vaccinated include individuals who have received either the Johnson & Johnson vaccine or two vaccine doses of Pfizer or Moderna.

xviii Figure assumes Harris County's total population of 4,731,145, per the US Census Bureau's 2020 Decennial Census.

^{**} Figure assumes Harris County's total population of 4,731,145, per the US Census Bureau's 2020 Decennial Census.

NUMBER OF INDIVIDUALS PER 100,000 RESIDENTS FULLY VACCINATED BY ZIP CODE

Table 1 presents the number of individuals per 100,000 residents fully vaccinated by zip code. The table also includes the median income and Social Vulnerability Index (SVI) score for each zip code.

Social vulnerability describes a community's ability to prevent human suffering and financial loss in the event of a disaster (such as a hurricane or disease outbreak).** SVI rankings are based on percentiles ranging from 0 to 1 (with higher values indicating greater vulnerability). SVI data is often presented using quartile classification. This analysis utilizes CDC's SVI classifications as follows: 0-0.25 (lowest vulnerability); 0.25-0.5 (moderate low); 0.50-0.75 (moderate high); and 0.75-1 (highest vulnerability).

Table 1 ranks zip codes within Harris County to show relative vulnerability in comparison to the rest of Harris County. The median of the median incomes of the fifteen Harris County zip codes with the **fewest number of individuals per 100,000 residents fully vaccinated is \$50,461**. The median of the median incomes of the fifteen Harris County zip codes with the **greatest number of individuals per 100,000 residents fully vaccinated is \$91,138**.xxi

This analysis excludes zip codes 77027, 77010, 77024, 77030, 77056, 77507, 77523, 77046, and 77498 because they report higher vaccinated populations than the reported zip code population. HCPH suggests that this is likely due to the low population relative to other zip codes, which means measured parameters are sensitive to bad data such as data entry errors, individuals using business addresses in lieu of a home residence, and other factors. For a full list of zip codes, see Appendix D.

xx Centers for Disease Control (CDC) SVI 2016 Documentation.

xxi Analysis excludes zip codes with small percentage of land mass in Harris County and zip code 77507, which has no income data available

Table 1

Number of Individuals Per 100,000 Residents Fully Vaccinated by Zip Code, Median Income, and SVI

December 14, 2020 - November 30, 2021

Zip Codes With Fewest Number of Individuals Per 100,000 Residents Fully Vaccinated									
Zip Code	Number Per 100k	Median Income	SVI						
77336	35,830	\$68,596	0.30						
77090	38,236	\$39,808	0.70						
77532	40,537	\$67,824	0.37						
77562	41,416	\$59,792	0.63						
77520	43,953	\$50,461	0.82						
77004	44,134	\$51,309	0.53						
77050	44,278	\$48,500	0.71						
77067	44,304	\$43,282	0.79						
77530	44,452	\$61,149	0.59						
77060	45,063	\$31,006	0.94						
77013	46,609	\$38,665	0.98						
77503	46,975	\$51,312	0.82						
77091	47,003	\$36,098	0.92						
77036	47,145	\$30,952	0.93						
77571	47,378	\$76,864	0.38						

Zip Codes With Greatest Number of Individuals Per 100,000 Residents Fully Vaccinated									
Zip Code	Number Per 100k	Median Income	SVI						
77094	64,128	\$178,354	NA						
77054	64,254	\$50,827	0.26						
77041	64,316	\$87,489	0.31						
77083	67,378	\$54,425	0.53						
77025	67,991	\$76,772	0.32						
77006	71,035	\$85,956	0.09						
77008	72,434	\$108,644	0.08						
77005	73,190	\$192,380	0.03						
77002	74,235	\$71,369	0.42						
77059	75,169	\$139,163	0.05						
77032	75,448	\$32,473	0.99						
77007	75,524	\$125,653	0.01						
77401	79,645	\$193,950	0.03						
77098	83,467	\$91,138	0.07						
77019	86,972	\$116,207	0.09						

Source: Population estimates from 2020 Census; income data from American Community Survey (ACS) 2019 5-year estimates downloaded from Harris County's Applied Technologies Location Analysis and Statistics (ATLAS); and SVI and vaccination rates from Harris County Public Health.

Moderate High Vulnerability

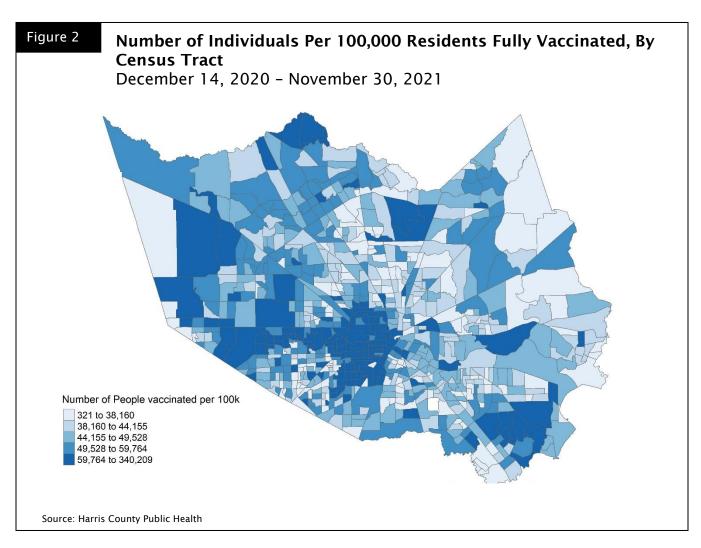
Highest Vulnerability

Lowest Vulnerability

Moderate Low Vulnerability

NUMBER OF INDIVIDUALS PER 100,000 RESIDENTS FULLY VACCINATED BY CENSUS TRACT

Figure 2 presents the number of individuals per 100,000 Harris County residents fully vaccinated by census tract.

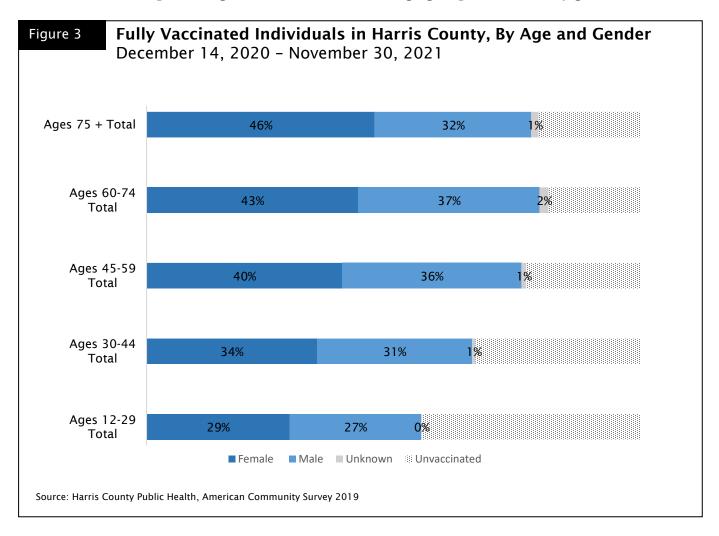


As of November 30, 2021, **56.1%** (2,655,159) of Harris County residents were fully vaccinated.*xxii

xxii Figure assumes Harris County population of 4,731,145 according to the 2020 Census.

FULLY VACCINATED INDIVIDUALS BY AGE AND GENDER

Figure 3 and **Table 2**, which follows, reflect all individuals fully vaccinated by all providers in Harris County by the individual's age and gender. Each bar for each age group represents the age group's total population within Harris County's population and reflects the percentage of individuals in each age group vaccinated by gender.



Of the individuals who are fully vaccinated by a Harris County provider, 52% (1,386,570) are female; 47% (1,234,118) are male; and 1% (30,522) are recorded as unknown gender. As shown in **Figure 3**, individuals age 75 or older have the smallest percent of their age group who remain unvaccinated (21%), while individuals age 12-29 include the largest percent of their age group who remain unvaccinated (44%).

xemi Age and gender totals do not sum to the total number of fully vaccinated individuals due to some records having incomplete or incorrect data.

FULLY VACCINATED INDIVIDUALS BY AGE GROUP

Table 2 reflects all individuals fully vaccinated by all providers in Harris County by the individual's age group and includes the percentage of Harris County's total age group population vaccinated. For context, Table 2 also includes the percentage of Harris County's total population by age group.

Table 2

Fully Vaccinated Individuals in Harris County by Age Group December 14, 2020 - November 30, 2021									
Age Group	Number of Individuals Vaccinated	Percentage of Age Group Vaccinated*xiv	Percentage of Total County Population***						
75+	152,532	79.4%	5.0%						
60-74	464,881	81.4%	14.8%						
45-59	646,719	76.9%	21.8%						
30-44	698,312	66.6%	27.2%						
12-29	688,766	55.8%	31.1%						

Source: Harris County Public Health, American Community Survey 2019 1-Year Estimates

Data in Table 2

- 79.4% (152,532) of individuals ages 75 and over are fully vaccinated;

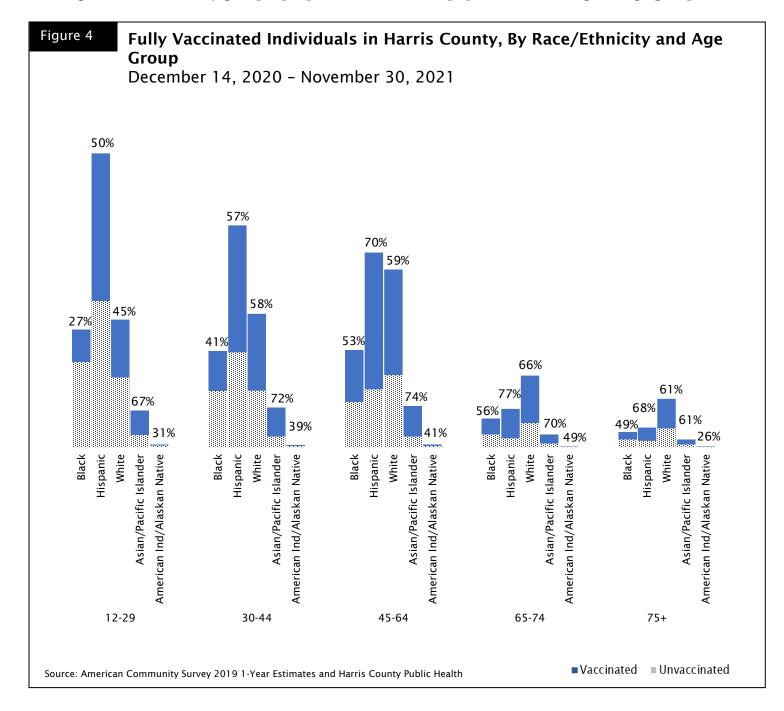
- 81.4% (464,881) of individuals ages 60-74 are fully vaccinated;
- 76.9% (646,719) of individuals ages 45-59 are fully vaccinated;
- 66.6% (698,312) of individuals ages 30-44 are fully vaccinated; and
- 55.8% (688,766) of individuals ages 12-29 are fully vaccinated.

xxiiv Reflects the number of individuals in the age group who are fully vaccinated. Previous versions of this memo reflected the total age group fully vaccinated as a percentage of all individuals vaccinated.

Age group populations from American Community Survey 2019 data. Age group 12-29 is estimated by the Analyst's Office due to data limitations.

FULLY VACCINATED INDIVIDUALS BY RACE/ETHNICITY AND AGE GROUP

Figure 4 reflects all individuals fully vaccinated by all providers in Harris County by the individual's race and age group. Each bar represents the percentage of individuals vaccinated for the given age range by race/ethnicity. The height of the bars reflects the given race/ethnicity group's proportion of the total population for the given age group.

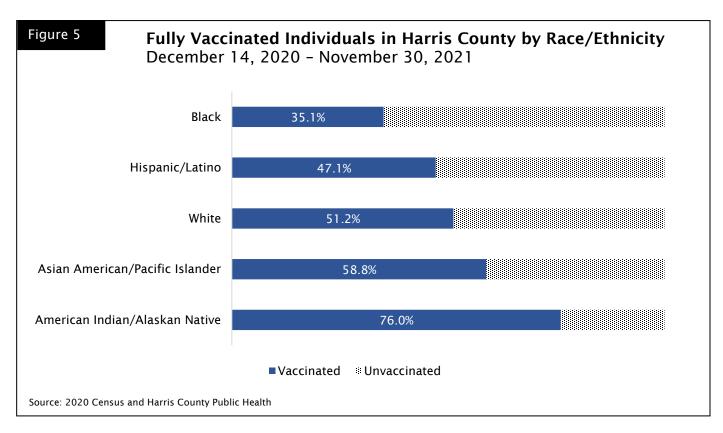


As shown in **Figure 4**, for individuals fully vaccinated in Harris County, the demographic with the highest percentage of individuals vaccinated are individuals who identify as Hispanic aged 65-74 (77%). The demographic with the lowest percentage of individuals vaccinated are individuals who identify as American Indian/Alaskan Native aged 75+ (26%), followed closely by individuals who identify as Black aged 75+ (27%).

PERCENTAGE OF FULLY VACCINATED INDIVIDUALS BY RACE AND ETHNICITY

Figure 5 and **Table 3** reflect the percentage of individuals in Harris County who are fully vaccinated by all providers in Harris County by race and ethnicity. **xvi*

Each bar for each race or ethnicity group represents the race or ethnicity group's total population within Harris County's population and reflects the percentage of individuals in each race and ethnicity group vaccinated.



As shown in **Figure 5**, individuals who identify as Black in Harris County have the smallest vaccinated population at 35.1%, followed by individuals who identify as Hispanic or Latino at 47.1%.

xxxi Note: Prior to February 4, 2021, providers were not required to report race and ethnicity when reporting doses to the Texas Department of State Health Services (DSHS) because vaccine recipients are allowed to decline disclosing their race and ethnicity to a provider.

FULLY VACCINATED INDIVIDUALS BY RACE AND ETHNICITY

Table 3 reflects the race and ethnicity of individuals in Harris County who are fully vaccinated by all providers in Harris County. For context, Table 3 also includes the percentage of Harris County's total population by race and ethnicity.

Previous versions of this table in past memos reflected the total number of individuals by race and ethnicity fully vaccinated as a percentage of all individuals vaccinated—this version of the report shows the percentage vaccinated within a given race or ethnicity.

Table 3

Fully Vaccinated Individuals in Harris County by Race/Ethnicity December 14, 2020 - November 30, 2021 Percentage of Race/Ethnicity **Number of Individuals** Percentage of Race/Ethnicity **Vaccinated** Group **Total Population Vaccinated** xxviii Black 310,767 35.1% 18.7% Hispanic/Latino 959,308 47.1% 43.0% White 670,813 51.2% 27.7% Asian American/ 204,574 58.8% 7.4% Pacific Islander American Indian/ 6,409 76.0% 0.2% Alaskan Native Multi-Racial NA 218,908 2.6% Other/Unknown 284,380 NA 0.5%

Source: 2020 Census and Harris County Public Health

As shown in **Table 3**,

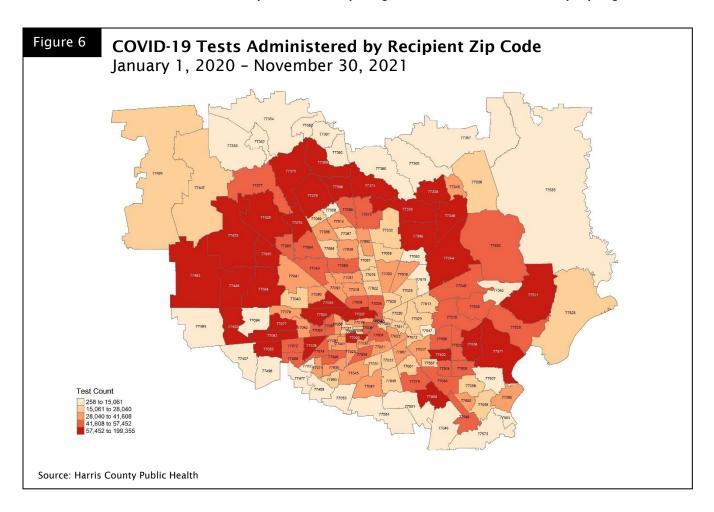
- 35.1% (310,767) of individuals who identify as Black are fully vaccinated;
- 47.1% (959,308) of individuals who identify as Hispanic/Latino are fully vaccinated;
- 51.2% (670,813) of individuals who identify as White are fully vaccinated;
- 58.8% (204,574) of individuals who identify as Asian American/Pacific Islander are fully vaccinated; and
- 76.0% (6,409) of individuals who identify as American Indian/Alaskan Native are fully vaccinated.

Note: Prior to February 4, 2021, providers were not required to report race/ethnicity when reporting doses to Texas Department of State Health Services (DSHS) because vaccine recipients are allowed to decline disclosing their race/ethnicity to a provider.

Note: The percentage of Harris County's total race and ethnicity group population that is vaccinated for Other/Unknown and Multiracial is unavailable because there are more vaccinated individuals identifying as Multi-racial and Other/Unknown than the total population estimate of both groups in Harris County's 2020 Census data.

COVID-19 TESTS BY ZIP CODE

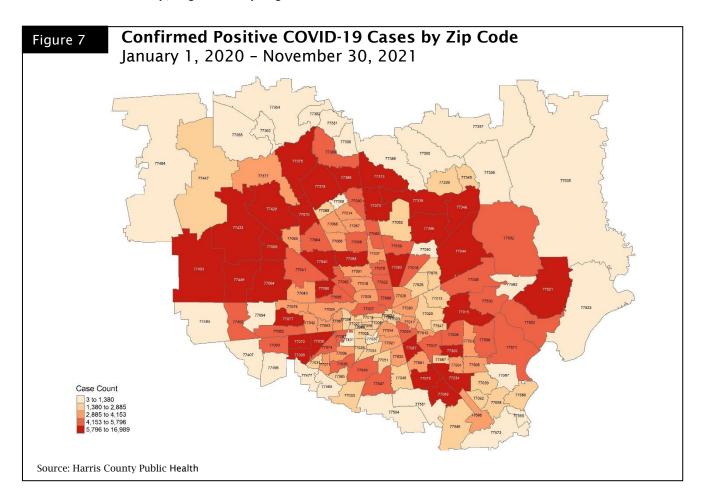
Figure 6 reflects the total number of COVID-19 polymerase chain reaction (PCR) tests administered to Harris County residents by all providers in Harris County by zip code.



Between January 1, 2020 and November 30, 2021, providers in Harris County administered 6,318,740 COVID-19 tests. For a full list of tests administered by recipient zip code, see Appendix A.

CONFIRMED POSITIVE COVID-19 CASES BY ZIP CODE

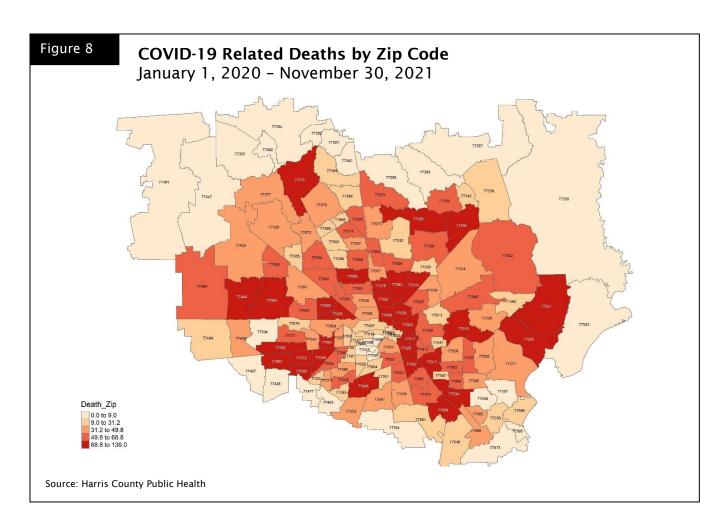
Figure 7 reflects the total number of COVID-19 positive cases confirmed by a PCR test in Harris County, reported by zip code.



Between January 1, 2020 and November 30, 2021, there were **585,130 confirmed positive cases of COVID-19** in Harris County. For a full list of positive cases by zip code, see Appendix B.

CONFIRMED COVID-19 RELATED DEATHS BY ZIP CODE

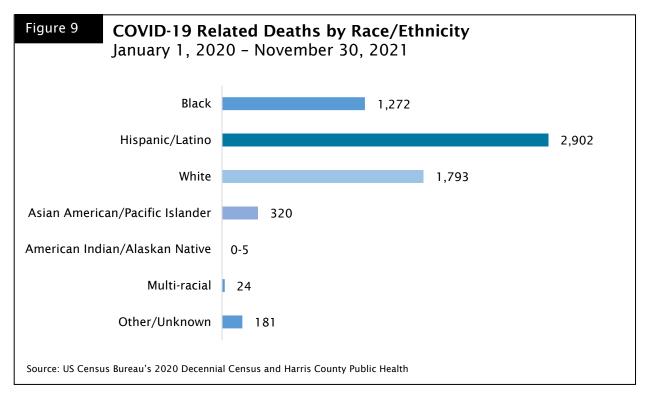
Figure 8 reflects the total number of confirmed COVID-19-related deaths in Harris County by zip code.



Between January 1, 2020 and November 30, 2021, there were **6,525 confirmed COVID-19-related deaths** in Harris County. For a full list of deaths by zip code, see Appendix C.

COVID-19 RELATED DEATHS BY RACE AND ETHNICITY

Figure 9 reflects the total number of confirmed COVID-19-related deaths in Harris County by race and ethnicity.



Of the 6,525 individuals in Harris County who died of a COVID-19-related death between January 1, 2020 and November 30, 2021:xxix

- 19.5% (1,272) identified as Black, and for context, 18.7% of County residents identify as Black;
- **44.5% (2,902) identified as Hispanic/Latino,** and for context, 43.0% of County residents identify as Hispanic;
- 27.5% (1,793) identified as White, and for context, 27.7% of County residents identify as White;
- 4.9% (320) identified as Asian or Pacific Islander, and for context, 7.4% of County residents identify as Asian, Pacific Islander, or Native Hawaiian;
- 0.1% (0-5) identified as American Indian or Alaskan Native, and for context,
 0.2% of County residents identify as American Indian or Alaskan Native;
- 0.4% (24) identified as Multi-racial, and for context, 2.6% of County residents identify as Two or More Races;
- 2.8% (181) were recorded as Other/Unknown race and ethnicity.

xxix County-level race and ethnicity data are derived from the 2020 Census population estimates.

APPENDIX A

Total COVID-19 Tests Administered by Zip Code									
	Ordered by	Tests Adı	ministered, Ja	nuary 1, 20)20 – Novemb	er 30, 202	21		
Zip Code	Tests Administered	Zip Code	Tests Administered	Zip Code	Tests Administered	Zip Code	Tests Administered		
77565	258	77029	18,970	77087	38,567	77054	57,273		
77381	288	77051	19,118	77041	38,751	77008	57,294		
77362	291	77011	19,280	77045	38,877	77024	57,441		
77382	353	77003	19,441	77079	38,984	77055	57,778		
77380	487	77069	20,236	77401	39,040	77070	58,962		
77354	764	77058	21,086	77047	39,498	77036	60,003		
77477	958	77026	22,130	77035	39,973	77339	60,401		
77355	969	77059	23,504	77042	40,121	77389	60,914		
77535	1,271	77523	23,744	77025	40,241	77044	61,330		
77386	1,285	77587	24,374	77019	40,594	77536	62,179		
77489	1,318	77067	25,593	77093	40,728	77082	62,411		
77507	1,355	77098	25,634	77080	40,981	77571	62,417		
77010	1,484	77048	26,714	77065	41,641	77502	62,806		
77581	1,741	77039	26,771	77074	42,532	77007	65,760		
77357	1,745	77086	26,866	77034	42,800	77388	68,269		
77053	1,836	77022	26,944	77075	42,957	77089	68,993		
77498	1,843	77020	26,997	77530	43,134	77077	71,092		
77365	2,545	77061	27,202	77073	43,455	77338	73,301		
77046	2,725	77076	27,416	77006	43,479	77083	79,400		
77584	2,819	77027	27,508	77504	43,765	77373	83,381		
77573	3,003	77043	27,827	77503	43,942	77521	90,957		
77407	3,455	77447	27,859	77096	44,539	77375	95,926		
77494	3,470	77091	28,371	77090	44,960	77450	97,642		
77050	4,196	77030	28,977	77532	45,089	77396	107,844		
77546	5,644	77062	29,842	77057	45,103	77346	108,211		
77094	10,944	77038	30,198	77002	45,599	77084	113,577		
77068	11,503	77060	30,518	77063	46,729	77095	114,008		
77562	12,631	77023	31,460	77049	47,169	77379	117,399		
77547	13,389	77016	31,540	77505	48,398	77005	123,319		
77078	14,716	77092	31,559	77099	48,845	77429	134,675		
77031	14,841	77021	31,891	77004	48,896	77433	158,426		
77013	15,165	77014	32,167	77040	49,360	77449	198,837		
77484	15,974	77066	33,363	77009	50,055				
77037	16,530	77071	33,808	77520	50,695				
77336	17,005	77017	35,302	77506	51,923				
77012	17,163	77018	35,716	77064	53,213				
77028	17,375	77081	36,155	77088	53,546				
77033	17,482	77056	37,641	77072	55,178				
77032	18,299	77586	37,677	77015	56,053				
77085	18,918	77345	38,167	77377	56,570				

APPENDIX B

Total COVID-19 Confirmed Positive Cases by Zip Code									
Ordered by Positive Cases, January 1, 2020 - November 30, 2021									
	Positive		Positive		Positive		Positive		
Zip Code	Cases	Zip Code	Cases	Zip Code	Cases	Zip Code	Cases		
77362	3	77005	1,904	77014	3,663	77506	5,471		
77381	4	77345	1,911	77079	3,730	77520	5,472		
77382	4	77058	1,918	77067	3,778	77055	5,524		
77355	4	77031	2,012	77065	3,829	77064	5,607		
77565	5	77006	2,038	77066	3,860	77082	5,713		
77354	9	77056	2,143	77503	3,887	77060	5,733		
77535	9	77013	2,294	77042	3,983	77070	5,847		
77380	23	77051	2,307	77020	4,005	77040	5,851		
77386	24	77019	2,319	77086	4,016	77388	5,866		
77357	24	77078	2,339	77091	4,072	77080	5,944		
77573	25	77025	2,433	77033	4,083	77087	5,947		
77498	51	77054	2,464	77057	4,110	77075	6,004		
77010	61	77053	2,515	77063	4,111	77077	6,043		
77407	74	77586	2,517	77377	4,123	77034	6,050		
77365	76	77587	2,565	77035	4,144	77073	6,097		
77507	79	77032	2,567	77039	4,198	77338	6,199		
77584	90	77028	2,620	77041	4,226	77502	6,255		
77523	132	77062	2,668	77047	4,336	77099	6,733		
77581	164	77339	2,782	77023	4,352	77072	7,000		
77046	176	77002	2,792	77092	4,355	77044	7,145		
77477	281	77085	2,818	77038	4,362	77093	7,382		
77484	346	77029	2,852	77022	4,375	77375	7,512		
77050	537	77048	2,869	77389	4,432	77088	7,603		
77494	622	77004	2,950	77532	4,494	77089	7,784		
77094	811	77037	2,952	77007	4,555	77373	7,814		
77489	1,024	77011	2,959	77016	4,592	77521	7,957		
77068	1,190	77598	2,969	77450	4,762	77095	7,996		
77562	1,235	77018	3,049	77083	4,829	77015	8,172		
77401	1,251	77021	3,187	77090	4,849	77396	8,302		
77336	1,325	77043	3,204	77536	4,889	77036	8,440		
77030	1,328	77012	3,250	77045	4,890	77346	8,844		
77098	1,399	77061	3,306	77530	4,911	77379	9,157		
77059	1,481	77096	3,346	77009	4,937	77429	9,434		
77547	1,487	77505	3,352	77074	5,039	77433	11,030		
77003	1,545	77071	3,382	77571	5,040	77084	14,197		
77027	1,738	77026	3,404	77017	5,157	77449	16,891		
77546	1,802	77504	3,410	77076	5,328				
77069	1,820	77024	3,441	77049	5,403				
77447	1,866	77008	3,600	77081	5,424				

APPENDIX C

Total Confirmed COVID-19 Related Deaths by Zip Code								
	Ordered b	y Number (of Deaths, Jan	uary 1, 20	20 – Novemb	er 30, 2021		
Zip Code	COVID	Zip Code	COVID	Zip Code	COVID	Zip Code	COVID	
•	Deaths		Deaths	•	Deaths	·	Deaths	
77362	0-5	77586	15	77530	37	77064	66	
77381	0-5	77002	15	77062	38	77075	66	
77382	0-5	77389	16	77042	38	77060	67	
77355	0-5	77547	17	77047	39	77339	68	
77565	0-5	77007	17	77053	40	77091	68	
77354	0-5	77562	18	77070	41	77084	68	
77535	0-5	77345	18	77429	41	77346	70	
77380	0-5	77546	19	77506	42	77011	71	
77386	0-5	77056	19	77057	43	77026	71	
77357	0-5	77065	19	77571	43	77023	71	
77573	0-5	77079	20	77004	46	77375	71	
77498	0-5	77388	22	77043	48	77063	72	
77010	0-5	77003	23	77039	48	77015	72	
77407	0-5	77031	24	77038	48	77083	75	
77365	0-5	77025	24	77450	48	77045	75	
77507	0-5	77013	25	77433	49	77034	80	
77584	0-5	77058	26	77021	50	77017	82	
77523	0-5	77587	26	77044	50	77099	82	
77046	0-5	77032	26	77090	51	77080	84	
77477	0-5	77066	26	77061	53	77009	85	
77484	0-5	77096	28	77014	55	77521	86	
77094	0-5	77051	29	77503	55	77020	87	
77447	0-5	77085	29	77077	55	77076	88	
77489	6	77086	29	77028	56	77082	90	
77030	7	77037	32	77092	56	77016	96	
77059	7	77505	32	77502	57	77055	96	
77006	7	77024	32	77029	58	77093	99	
77005	8	77008	32	77532	58	77087	100	
77050	9	77536	32	77012	59	77089	100	
77401	9	77048	33	77396	60	77022	101	
77581	10	77073	33	77081	61	77338	102	
77068	10	77067	34	77373	61	77088	115	
77098	10	77377	34	77095	61	77520	117	
77019	10	77071	35	77049	62	77036	117	
77027	11	77379	35	77074	63	77072	119	
77494	14	77018	36	77033	64	77449	133	
77336	14	77041	36	77040	64			
77054	14	77078	37	77504	65			
77069	15	77598	37	77035	65			

APPENDIX D

Number of Individuals Per 100,000 Residents Fully Vaccinated and Social Vulnerability Index (SVI), Ordered by Residents Vaccinated, December 14, 2020 – November 30, 2021***

Top			,			,		•		,		
77090 38,236 0.70 77547 49,164 0.66 77433 55,310 0.11 77089 62,389 0.47 77532 40,537 0.37 77051 49,217 0.80 77429 55,326 0.06 77057 62,400 0.34 77520 43,953 0.82 77338 50,033 0.58 77377 55,734 0.24 77389 63,310 0.14 77004 44,134 0.53 77080 50,043 0.83 77505 55,783 0.24 77003 63,317 0.61 77050 44,278 0.71 77049 50,199 0.63 77388 55,787 0.13 77009 64,123 0.62 77067 44,304 0.79 77504 50,205 0.88 77494 56,092 0.36 77044 64,128 NA 77501 45,063 0.94 77061 50,640 0.70 77084 56,584 0.22 77054 64,254 0		100k	SVI		100k	SVI		100k	SVI			SVI
77532 40,537 0.37 77051 49,217 0.80 77429 55,326 0.06 77057 62,400 0.34 77562 41,416 0.63 77044 49,973 0.41 77375 55,673 0.45 77079 63,142 0.27 77520 43,953 0.82 77338 50,033 0.58 77377 55,734 0.24 77389 63,310 0.14 77004 44,134 0.53 77080 50,043 0.83 77505 55,783 0.24 77009 64,123 0.62 77067 44,304 0.79 77504 50,205 0.88 77449 56,092 0.36 77094 64,128 NA 77530 44,452 0.59 77061 50,640 0.70 77084 56,584 0.32 77049 64,128 NA 77530 46,969 0.64 77016 51,020 0.89 77066 56,935 0.59 77033 67,378 0.3	77336	35,830	0.30	77053	49,152	0.72	77040	55,100	0.55	77062	62,202	0.19
77562 41,416 0.63 77044 49,973 0.41 77375 55,673 0.45 77079 63,142 0.27 77504 43,953 0.82 77338 50,033 0.58 77377 55,734 0.24 77389 63,310 0.14 77004 44,134 0.53 77080 50,043 0.83 77505 55,783 0.24 77003 63,317 0.61 77067 44,304 0.79 77504 50,199 0.63 77388 55,787 0.13 77009 64,123 0.62 77067 44,304 0.79 77504 50,255 0.88 77449 56,092 0.36 77094 64,128 NA 77500 44,278 0.99 77034 50,259 0.88 77449 56,092 0.36 77044 64,128 NA 77501 46,069 0.98 77034 50,259 0.89 77084 56,585 0.36 77083 64,316 0.3	77090	38,236	0.70	77547	49,164	0.66	77433	55,310	0.11	77089	62,389	0.47
77520 43,953 0.82 77338 50,033 0.58 77377 55,734 0.24 77389 63,310 0.14 77004 44,134 0.53 77080 50,043 0.83 77505 55,783 0.24 77003 63,317 0.61 77050 44,278 0.71 77049 50,199 0.63 77388 55,787 0.13 77099 64,123 0.62 77067 44,304 0.79 77544 50,205 0.88 77449 56,092 0.36 77094 64,128 NA 77530 44,452 0.59 77034 50,329 0.67 77069 56,504 0.22 77054 64,254 0.26 77060 45,063 0.94 77061 50,640 0.70 77084 56,585 0.36 77041 64,316 0.31 77513 45,099 0.64 77061 51,045 0.74 77017 57,179 0.66 77025 67,378 0	77532	40,537	0.37	77051	49,217	0.80	77429	55,326	0.06	77057	62,400	0.34
77004 44,134 0.53 77080 50,043 0.83 77505 55,783 0.24 77003 63,317 0.61 77050 44,278 0.71 77049 50,199 0.63 77388 55,787 0.13 77009 64,123 0.62 77067 44,304 0.79 77504 50,205 0.88 77449 56,092 0.36 77094 64,128 NA 77530 44,452 0.59 77034 50,329 0.67 77069 56,504 0.22 77054 64,254 0.26 77060 45,063 0.94 77061 50,640 0.70 77084 56,585 0.36 77041 64,316 0.31 77501 45,099 0.64 77016 51,020 0.89 77066 56,935 0.59 77083 67,378 0.53 77031 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0	77562	41,416	0.63	77044	49,973	0.41	77375	55,673	0.45	77079	63,142	0.27
77050 44,278 0.71 77049 50,199 0.63 77388 55,787 0.13 77009 64,123 0.62 77067 44,304 0.79 77504 50,205 0.88 77449 56,092 0.36 77044 64,128 NA 77530 44,452 0.59 77034 50,329 0.67 77069 56,504 0.22 77054 64,254 0.26 77060 45,063 0.94 77061 50,604 0.70 77084 56,585 0.36 77041 64,316 0.31 77521 45,099 0.64 77016 51,020 0.89 77065 56,585 0.59 77083 67,378 0.53 77013 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77091 47,030 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 77,144 0	77520	43,953	0.82	77338	50,033	0.58	77377	55,734	0.24	77389	63,310	0.14
77067 44,304 0.79 77504 50,205 0.88 77449 56,092 0.36 77094 64,128 NA 77530 44,452 0.59 77034 50,329 0.67 77069 56,504 0.22 77054 64,254 0.26 77060 45,063 0.94 77016 50,604 0.70 77084 56,585 0.36 77041 64,316 0.31 77521 45,099 0.64 77016 51,020 0.89 77066 56,935 0.59 77083 67,378 0.53 77013 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77031 47,033 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77379 58,744 0.68 77005 73,190 0	77004	44,134	0.53	77080	50,043	0.83	77505	55,783	0.24	77003	63,317	0.61
77530 44,452 0.59 77034 50,329 0.67 77069 56,504 0.22 77054 66,254 0.26 77060 45,063 0.94 77061 50,640 0.70 77084 56,585 0.36 77041 64,316 0.31 77521 45,099 0.64 77016 51,020 0.89 77066 56,935 0.59 77083 67,378 0.53 77013 46,609 0.98 77085 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77031 46,975 0.82 77088 51,097 0.77 77095 57,357 0.23 77006 71,035 0.09 77031 47,033 0.92 77086 51,240 0.78 77082 57,357 0.23 77008 72,434 0.08 77034 47,145 0.93 77033 51,220 0.89 77055 58,744 0.68 77002 74,235 <td< td=""><td>77050</td><td>44,278</td><td>0.71</td><td>77049</td><td>50,199</td><td>0.63</td><td>77388</td><td>55,787</td><td>0.13</td><td>77009</td><td>64,123</td><td>0.62</td></td<>	77050	44,278	0.71	77049	50,199	0.63	77388	55,787	0.13	77009	64,123	0.62
77060 45,063 0.94 77061 50,640 0.70 77084 56,585 0.36 77041 64,316 0.31 77521 45,099 0.64 77016 51,020 0.89 77066 56,935 0.59 77083 67,378 0.53 77013 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77503 46,975 0.82 77088 51,097 0.77 77095 57,357 0.23 77006 71,035 0.09 77091 47,003 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 <td< td=""><td>77067</td><td>44,304</td><td>0.79</td><td>77504</td><td>50,205</td><td>0.88</td><td>77449</td><td>56,092</td><td>0.36</td><td>77094</td><td>64,128</td><td>NA</td></td<>	77067	44,304	0.79	77504	50,205	0.88	77449	56,092	0.36	77094	64,128	NA
77521 45,099 0.64 77016 51,020 0.89 77066 56,935 0.59 77083 67,378 0.53 77013 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77503 46,975 0.82 77088 51,097 0.77 77095 57,357 0.23 77006 71,035 0.09 77091 47,003 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77379 58,127 0.21 77005 73,190 0.03 77571 47,378 0.38 77502 52,027 0.89 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 <td< td=""><td>77530</td><td>44,452</td><td>0.59</td><td>77034</td><td>50,329</td><td>0.67</td><td>77069</td><td>56,504</td><td>0.22</td><td>77054</td><td>64,254</td><td>0.26</td></td<>	77530	44,452	0.59	77034	50,329	0.67	77069	56,504	0.22	77054	64,254	0.26
77013 46,609 0.98 77035 51,045 0.74 77017 57,179 0.66 77025 67,991 0.32 77503 46,975 0.82 77088 51,097 0.77 77095 57,357 0.23 77006 71,035 0.09 77091 47,003 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77379 58,127 0.21 77005 73,190 0.03 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77093 47,758 0.97 77022 52,671 0.97 77087 58,733 0.18 77007 75,524 0.01 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 <td< td=""><td>77060</td><td>45,063</td><td>0.94</td><td>77061</td><td>50,640</td><td>0.70</td><td>77084</td><td>56,585</td><td>0.36</td><td>77041</td><td>64,316</td><td>0.31</td></td<>	77060	45,063	0.94	77061	50,640	0.70	77084	56,585	0.36	77041	64,316	0.31
77503 46,975 0.82 77088 51,097 0.77 77095 57,357 0.23 77006 71,035 0.09 77091 47,003 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77379 58,127 0.21 77005 73,190 0.03 77571 47,378 0.38 77502 52,027 0.89 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77039 47,635 0.97 77022 52,671 0.97 77087 58,783 0.76 77059 75,148 0.99 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 <td< td=""><td>77521</td><td>45,099</td><td>0.64</td><td>77016</td><td>51,020</td><td>0.89</td><td>77066</td><td>56,935</td><td>0.59</td><td>77083</td><td>67,378</td><td>0.53</td></td<>	77521	45,099	0.64	77016	51,020	0.89	77066	56,935	0.59	77083	67,378	0.53
77091 47,003 0.92 77086 51,240 0.78 77082 57,616 0.54 77008 72,434 0.08 77036 47,145 0.93 77033 51,259 0.93 77379 58,127 0.21 77005 73,190 0.03 77571 47,378 0.38 77502 52,027 0.89 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77093 47,758 0.97 77022 52,671 0.97 77087 58,799 1.00 77032 75,448 0.99 77078 47,62 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,69 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0	77013	46,609	0.98	77035	51,045	0.74	77017	57,179	0.66	77025	67,991	0.32
77036 47,145 0.93 77033 51,259 0.93 77379 58,127 0.21 77005 73,190 0.03 77571 47,378 0.38 77502 52,027 0.89 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77093 47,758 0.97 77022 52,671 0.97 77087 58,799 1.00 77032 75,448 0.99 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 <td< td=""><td>77503</td><td>46,975</td><td>0.82</td><td>77088</td><td>51,097</td><td>0.77</td><td>77095</td><td>57,357</td><td>0.23</td><td>77006</td><td>71,035</td><td>0.09</td></td<>	77503	46,975	0.82	77088	51,097	0.77	77095	57,357	0.23	77006	71,035	0.09
77571 47,378 0.38 77502 52,027 0.89 77055 58,744 0.68 77002 74,235 0.42 77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77093 47,758 0.97 77022 52,671 0.97 77087 58,799 1.00 77032 75,448 0.99 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77071 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 <t< td=""><td>77091</td><td>47,003</td><td>0.92</td><td>77086</td><td>51,240</td><td>0.78</td><td>77082</td><td>57,616</td><td>0.54</td><td>77008</td><td>72,434</td><td>0.08</td></t<>	77091	47,003	0.92	77086	51,240	0.78	77082	57,616	0.54	77008	72,434	0.08
77039 47,635 0.73 77047 52,576 0.55 77023 58,787 0.76 77059 75,169 0.05 77093 47,758 0.97 77022 52,671 0.97 77087 58,799 1.00 77032 75,448 0.99 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 0.07 77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 <t< td=""><td>77036</td><td>47,145</td><td>0.93</td><td>77033</td><td>51,259</td><td>0.93</td><td>77379</td><td>58,127</td><td>0.21</td><td>77005</td><td>73,190</td><td>0.03</td></t<>	77036	47,145	0.93	77033	51,259	0.93	77379	58,127	0.21	77005	73,190	0.03
77093 47,758 0.97 77022 52,671 0.97 77087 58,799 1.00 77032 75,448 0.99 77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 0.07 77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 <	77571	47,378	0.38	77502	52,027	0.89	77055	58,744	0.68	77002	74,235	0.42
77078 47,762 0.89 77038 52,957 0.50 77450 58,833 0.18 77007 75,524 0.01 77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 0.07 77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414	77039	47,635	0.73	77047	52,576	0.55	77023	58,787	0.76	77059	75,169	0.05
77026 47,769 0.94 77020 53,002 0.89 77099 58,939 0.80 77401 79,645 0.03 77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 0.07 77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429	77093	47,758	0.97	77022	52,671	0.97	77087	58,799	1.00	77032	75,448	0.99
77073 47,832 0.50 77075 53,064 0.61 77045 59,268 0.84 77098 83,467 0.07 77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,299 0.38 77011 60,192 0.96 77507 164,545	77078	47,762	0.89	77038	52,957	0.50	77450	58,833	0.18	77007	75,524	0.01
77021 47,835 0.74 77068 53,292 0.43 77077 59,295 0.29 77019 86,972 0.09 77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77081 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545	77026	47,769	0.94	77020	53,002	0.89	77099	58,939	0.80	77401	79,645	0.03
77028 47,853 0.84 77586 53,382 0.18 77064 59,372 0.47 77027 104,305 0.01 77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,896 0.57 77072 60,341 0.87 77523 172,214	77073	47,832	0.50	77075	53,064	0.61	77045	59,268	0.84	77098	83,467	0.07
77506 48,005 0.95 77447 53,444 0.45 77092 59,433 0.75 77010 113,930 0.02 77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011	77021	47,835	0.74	77068	53,292	0.43	77077	59,295	0.29	77019	86,972	0.09
77396 48,089 0.51 77587 53,506 0.91 77085 59,845 0.60 77024 120,414 0.16 77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139	77028	47,853	0.84	77586	53,382	0.18	77064	59,372	0.47	77027	104,305	0.01
77598 48,303 0.57 77031 54,009 0.64 77096 60,167 0.39 77030 128,429 0.28 77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 77014	77506	48,005	0.95	77447	53,444	0.45	77092	59,433	0.75	77010	113,930	0.02
77076 48,374 0.86 77346 54,076 0.12 77345 60,175 0.05 77056 140,285 0.14 77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77396	48,089	0.51	77587	53,506	0.91	77085	59,845	0.60	77024	120,414	0.16
77536 48,431 0.44 77042 54,299 0.38 77011 60,192 0.96 77507 164,545 NA 77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77598	48,303	0.57	77031	54,009	0.64	77096	60,167	0.39	77030	128,429	0.28
77081 48,584 0.81 77063 54,496 0.57 77072 60,341 0.87 77523 172,214 0.26 77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88	77076	48,374	0.86	77346	54,076	0.12	77345	60,175	0.05	77056	140,285	0.14
77373 48,769 0.30 77012 54,803 0.99 77071 60,403 0.68 77046 187,011 0.10 77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77536	48,431	0.44	77042	54,299	0.38	77011	60,192	0.96	77507	164,545	NA
77037 48,893 0.69 77065 54,880 0.43 77043 60,569 0.52 77498 545,139 0.33 77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 0.88 77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77081	48,584	0.81	77063	54,496	0.57	77072	60,341	0.87	77523	172,214	0.26
77074 48,894 0.86 77015 54,932 0.76 77029 60,784 0.88 77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77373	48,769	0.30	77012	54,803	0.99	77071	60,403	0.68	77046	187,011	0.10
77014 49,056 0.78 77070 54,966 0.49 77018 61,708 0.48	77037	48,893	0.69	77065	54,880	0.43	77043	60,569	0.52	77498	545,139	0.33
	77074	48,894	0.86	77015	54,932	0.76	77029	60,784	0.88			
77048 49,067 0.85 77058 55,042 0.46 77339 62,101 0.32	77014	49,056	0.78	77070	54,966	0.49	77018	61,708	0.48			
	77048	49,067	0.85	77058	55,042	0.46	77339	62,101	0.32			

xxx Table excludes data for zip codes with unavailable population and vaccination data.



The Harris County Commissioners Court's Analyst's Office provides the Harris County Commissioners Court members with objective, nonpartisan, and timely fiscal and policy analysis related to the efficiency and effectiveness of various County operations.

This memo was prepared by Ramin Naderi, Analyst and Amy Rose, Senior Analyst.

Commissioners Court's Analyst's Office 1115 Congress Street, 6th Floor Houston, Texas 77002

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